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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|-------------------------------|------------------|
| 10/061,576 | 02/01/2002 | Lawrence W. Hill | DBI-005XX | 9666 |
| 207 | 7590 | 07/06/2004 | | |
| WEINGARTEN, SCHURGIN, GAGNEBIN & LEOVICI LLP TEN POST OFFICE SQUARE BOSTON, MA 02109 | | | | |
| | | | EXAMINER MOSKOWITZ, NELSON | |
| | | | ART UNIT 3663 | PAPER NUMBER |

DATE MAILED: 07/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/061,576

Applicant(s)

HILL ET AL.

Examiner

Nelson Moskowitz

Art Unit

3663

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 5/6/02.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

Application 10/061,576

DETAILED ACTION

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

Claim 1 is rejected under 35 U.S.C. 102(e) as being clearly anticipated by Bass et al ('524) or Vinegar et al ('883). See, inter alia, the computer system 64 at the surface 36, the surface modem 39, the computer system and modem 38, the control module 110, and modem 122 which receives signals from computer system 64. See, inter alia, sections 0012, 0013, 0015, 0051, 0057, 0087, and 0090.

Please note that the specific reference constituents cited herein are done so for the convenience of the Applicant and are in no way intended to be limiting. The references should be considered in their entirety.

2. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bass et al ('524) or Vinegar et al ('883).

In determining obviousness, the following factual determinations are made:

- a. first, the scope and content of the prior art;
- b. second, the difference between the prior art and the pending claims.
- c. third, the level of skill of a person ordinary skill in this art; and

d. fourth, whether other objective evidence may be present, which indicates obviousness or nonobviousness. See, e.g., *In re Dembiczak*, 175 F.3d 994, 998, 50 USPQ2d 1614, 1616 (Fed. Cir. 1999) (citing *Graham v. John Deere Co.*, 282 US 1, 17-18, USPQ 456, 466-67 (1966)).

Objective evidence includes long felt but unmet need for the claimed invention, failure of others to solve the problem addressed by the claimed invention, and not other factors. See, e.g., *Simmons Fastener Corp. v. Illinois Tool Works, Inc.*, 739 Fed. 1573, 1574-76, 22 USPQ 744, 745-47 (Fed. Cir. 1984).

a) In examining the scope and content of the prior art it is found that the aforesaid prior art discloses the downhole telemetry and power system as claimed, including a surface data processor, a surface modem, a downhole modem, a retentive memory, and a downhole processor, as set forth in the preceding section of this action.

b) The use of FLASH memory, new modulation structure, new address values, bit field changes, and using the internet as a communication mode, are choices which provide no novel or unobvious result, and are ubiquitous in this art. It is earnestly believed that Applicant will not contend to the contrary.

Third, under *Deere* the level of ordinary skill in this art may be determined by the analysis of the Court as set forth in *Environmental Design Ltd. v. Union Oil Co.* 713 F.3d 693, 218 USPQ 865-69 (Fed. Cir. 1983) cert. denied, 464 U.S. (1984), where the court listed these factors relevant to the determination of the level of ordinary skill: type of problems encountered in the art, prior art solutions, rapidity of innovations, sophistication of technology, and educational level of the active worker in the field.

The types of problems encountered in the art involve signal and power transmission through a borehole's environment having high heat, pressure, shock waves, and abrasive fluids.

Innovation in this field has been very fast as can be seen from virtual birth of this field in the 1970s to its present highly complex and sophisticated status.

Prior art solutions include dual computer-modem systems. Skilled artisans generally have a college level education and over three (3) years of experience, as can be seen from published articles in the major journals in this field.

To date, no secondary consideration (objective evidence) has been presented.

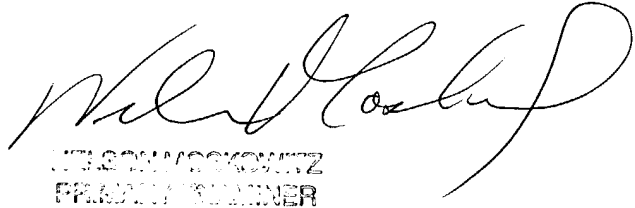
Therefore, the use of a surface data processor, a surface modem, a downhole modem, a retentive memory, and a downhole processor with the systems of Bass or Vinegar would have been obvious to one skilled in the art for the aforesaid reasons.

3. References C-J (PTO-892) are cited to show prior art downhole telemetry and power systems having computer-modem systems both at the surface and downhole. The '310 patent to Belaigues et al is noted as showing such systems known on or before January 26, 1978. The references cited by Applicant (PTO-1449) have been considered and found to be representative to the art of record.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nelson Moskowitz whose telephone number is 703-306-4165. The examiner can normally be reached on Monday through Friday from 7:30 a.m. to 4:00 p.m. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Tarcza, can be reached on (703) 306-4171. The before final fax phone number for the organization where this application or proceeding is assigned is 703-872-9326. The after final

fax phone number for the organization where this application or proceeding is assigned is 703-872-9327.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.



WILLIAM J. SCHUMACHER
FRANCIS SCHUMACHER